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Agricultural Education



THE LINCOLN JUNIOR FARMERS' CLUB

(See pages 146 and 159)

*"The great rural interests are human interests,
and good crops or livestock are of little value to
the farmer unless they open the door to a good
kind of life on the farm."—Theodore Roosevelt.*

EDITORIAL COMMENT

A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

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EDITORIAL STAFF CHANGES

AT THIS time we are announcing several changes on the staff of special editors.

The out-going editors have served the magazine and its readers well and probably no one more fully appreciates this service than the editor. Some of these men asked to be relieved of their duties months ago, but they have continued to serve at the request of the editor during his first year. He has been reluctant, because of their good work, to look about for men to take their places. However, we are fortunate in being able to announce on the following page the men who have been selected and who have accepted the duties of the respective sections. These men are capable and ambitious to carry on and render the same efficient service for the magazine as the editors whom they replace. They will look to the readers for your continued support in making OUR MAGAZINE even better. We welcome the new editors.

A TRIBUTE TO A TEACHER OF AGRICULTURE

My Throne

Folks ask me why I stick to this job
 When they have offered a better plan;
 They do not know the test it has been,
 The hardest for any young man;
 But I've found a place to give my best,
 And perhaps it will come back to me
 Just as a ship sails back into port
 When she conquers the waves of the sea.
 I often sit at the close of day
 Counting over its worries and joys,
 And I find enough joy to fully repay,
 I've a throne in the hearts of my boys,
 A throne monarchs might want for their own,
 Or a lovely queen wish to enjoy;
 T'will never be theirs, for money can't buy
 My throne in the hearts of my boys.
 We work together, my boys and I,
 In the classroom, the field, and the shop;
 I feel when we close each busy day,
 I have lifted them nearer the top.
 Yes, I would miss them were I to go
 More than a small child misses his toys,
 So I work on contented you see
 With my throne in the hearts of my boys.

The little poem that precedes was written by a patron as a tribute to George Ellis, teacher of Vocational agriculture at Boonville, Kentucky.

OUR COVER

A SUCCESSFUL club of young men has been in existence since 1930 in Loudoun County, Virginia. Mr. J. F. Potts, teacher of agriculture, decided to expand his instructional program since so many of his past students had continued to reside in the community and to farm.

A number of the young men were seen individually and a group of them brought together informally for the purpose of determining whether a club was worth organizing and what form of organization was preferred. Membership was limited to boys who had completed satisfactorily one year of work in vocational agriculture and who were actively engaged in farming at the time. This limitation of membership to past students of agriculture was a wise one at the time.

The declaration of purposes in their constitution is as follows: "to encourage boy students of vocational agriculture to become outstanding farmers and leaders in the various types of farming in their several communities." This declaration of purposes has been kept in prominence since that time.

Each member of the club selects one or more farm enterprises which he feels needs definite improvement on his own or on his parents' farm, if residing with his parents. One of his membership responsibilities is to plan a program of improvement and to carry out that program throughout the year. Improvement programs have included such things as increasing the productive efficiency of the dairy herd, improving a poor pasture, improving seed and swine, conducting a community testing program of fowls for state certification of poultry flocks for hatchery purposes.

THE LINCOLN JUNIOR FARMERS' CLUB

A MEMBERSHIP efficiency contest has been conducted each year and the name of the winner is engraved on a plaque. The award is kept at the school as the permanent property of the club—a recognition far surpassing the usual monetary reward. The score card for the contest is on page 159, altho several revisions have been made on it.

A full year's program is formulated annually for the club. Seasonal farm problems, especially those facing the group, are discussed under the leadership of different ones according to a schedule.

Of the three forms of instruction, all-day student classes, part-time classes, and evening classes, this young farmers' club has done more to influence the agriculture of the community, so feels Mr. Potts. It really is the combination of a club and a part-time class.—E. C. M.

HARRY GLENN PARKINSON

ANOTHER of its ablest and most inspiring leaders has been lost to vocational education in agriculture in the untimely passing of Professor Harry Glenn Parkinson, March 22, in Puerto Rico. His death was caused by a cerebral hemorrhage.

Professor Parkinson, head of the department of rural education, The Pennsylvania State College, since 1920, was nearing the completion of his second year as dean of the college of agriculture of the University of Puerto Rico. He was on leave of absence from the Pennsylvania institution with which he had been connected since 1917.

Born May 16, 1889, and reared on a farm near Time, Pennsylvania, Professor Parkinson was graduated from near-by Waynesburg College in 1911 with the A. B. degree. In 1913 the University of Illinois granted him the B. S. A. degree and his master-of-science degree was conferred by Cornell University in 1923.

Following his graduation from Illinois, Professor Parkinson served as teacher of agriculture in the American Farmers' School, Minneapolis, Minnesota, from 1913 to 1915, and from 1915 to 1917 in the same capacity in the Mt. Pleasant Vocational School at Hickory, Pennsylvania.

(Continued on page 160)



Professional



Special Editors — Old and New

F. F. A. Section

MR. Sampson, with this issue, has completed six years of service to this department of the magazine. Due to Mr. Sampson's long service in the field of vocational education in agriculture, he has seen the Future Farmer of America organization develop from its inception and his interest in the work has made him a valuable editor for this section. New Jersey had the honor of having the first national president of the F. F. A., Leslie Applegate. From my past year's association with Mr. Sampson in the capacity of the magazine, I can bespeak for past editors that he was always prompt in seeing that ample copy was on hand. Our readers appreciate this fine service and contribution which Mr. Sampson has rendered. We regret his leaving as a member of the editorial staff but we shall continue to expect contributions from the New Jersey program which he has developed so well.



H. O. Sampson

Research Section

MR. Wiseman has been the western representative as special editor for the research section of the magazine for a period of five years and eight months. Continued added responsibilities to his duties of teacher training in South Dakota have made it necessary for him to ask to be replaced. We regret that such is the case. In a recent letter requesting his release, Mr. Wiseman made a statement which I am sure the editor, as well as the readers of the magazine, can say is a mutual feeling and especially so from our point of view. "I have considered this position an honor and must say that I have enjoyed it very much." Thru his cooperation with Mr. Magill the section has continued to improve not only as a section reporting outstanding completed studies, but also it has served as an incentive to other workers to become interested in doing and reporting upon studies.



C. R. Wiseman

Part-Time Section

MR. Sasman has repeatedly asked, insistent at times, to be relieved of the duties as special editor of the part-time section. We have finally consented to release him with a record of two years and eight months of service in this capacity, only on condition that he continue to report on the progress of his part-time program. We usually consider Wisconsin as one of the states which pioneered in the field of part-time education for the out-of-school farm youth. Records show that Professor Welles, now in Massachusetts, started one of the first part-time classes in the state and the program has continued to expand under the direction of Mr. Sasman. The magazine extends to him and the teachers of agriculture in the state its best wishes in the future development of this excellent service to the neglected farm youth of their state. We have appreciated the contribution which Mr. Sasman has rendered the magazine.



L. R. Sasman

WE have looked into the west, and have found a man facing the Rising Sun, the F. F. A. emblem, signifying a better day in agriculture. Mr. Humphreys comes to our staff with a wealth of training and experience in the field of agricultural education both from the point of view of supervision and the training of teachers. He was vice president of the American Vocational Association representing agriculture when the magazine was launched and worked vigorously for it. Mr. Humphreys has developed an outstanding F. F. A. program in Utah. The state has taken national F. F. A. honors as follows: first, second, and fifth chapter contest; two firsts, a second, and two thirds in public speaking; awarded first place as a state association; and consistently high in other activities. Delegates in the 1934 convention will long remember the Utah F. F. A. band. Mr. Humphreys believes in young boys and in a program of training for LEADERSHIP, CO-OPERATIVE EFFORT, AND COMMUNITY BETTERMENT.



L. H. Humphreys

MR. E. R. Alexander, head of the department of agricultural education, College Station, Texas, for the past eight years, has accepted the duties as special editor of the research section of the magazine. Prior to this time he has had experience as a teacher in the high schools of Texas and four years in itinerant teacher training. Mr. Alexander has been a consistent contributor to the magazine and we are happy to have him as a member of the editorial staff. We regret that his photograph did not arrive in time so that we might introduce him to our readers by this means.

MR. F. J. Hubbard, State Director for Vocational Education, Jackson, Mississippi has made a distinct contribution to the magazine. For many years, he has been collecting epigrams and sayings pertaining or relating to agriculture. The Editor has been pleased to receive sixty-three pages of this material from Mr. Hubbard for use in the magazine as occasions demand. We can not fully express our appreciation to him for this material, but he will be silently rewarded from time to time as the sayings are used. We hope that this will be an inspiration to other readers to contribute such material as they find it or which is a product of their own thinking.

MR. McClelland of the Department of Agricultural Education, Ohio State University, Columbus needs no introduction to the readers of the magazine. We are fortunate in having him accept the assignment as special editor of the part-time section of the magazine, because he brings to it a wide and valuable background of experience in this particular field. As a teacher in Ohio he established the first class for out-of-school farm youth at Grove City, which was the beginning of the Young Farmers Clubs of Ohio. During his services as assistant supervisor, he devoted a large part of his time to the expansion of the part-time program and made a special study of these classes. As part-time specialist in the Office of Education, he contacted practically every state and is familiar with the programs being developed. Let us all co-operate with him in this challenging problem.



J. B. McClelland

Nothing becomes educative that is not used.

Vocational Education Adds Security*

DR. A. W. NOLAN, University of Illinois

SECURITY is a major life objective, the consumation of which is devoutly desired in all human endeavor. We are seeking personal economic security, domestic security, moral security, and national security. "To secure the blessings of liberty to ourselves and to our posterity"



A. W. Nolan

is one of the objectives of our national government, as stated in the preamble of the constitution. For the past one hundred fifty years our country and its citizens have enjoyed a high degree of security. Nothing adds to the sense of security more than the smooth functioning of our institutions. These are stone houses of security: the house of government, the house of capital, the house of labor, the house of our natural resources, the house of commerce and business, the house of the consumer, and the house of brains and character.

I think it was Dr. Prosser, who said that a few years ago our civilization was speeding around the bend of time in a high powered motor. In that car were a banker, a congressman, a soldier, a preacher, and of course the driver. Suddenly the car began to slow up, and after a few chugs of the engine, the car stopped. They all climbed out. No one seemed to know what was the trouble. The banker said, "We'll have to buy a new car." The congressman said, "We'll have to make a new law." The soldier was ready to declare war. The preacher said, "The Lord help us." But the chauffeur raised up the hood, adjusted the carburetor, climbed back into the car, stepped on the gas, and they were off again.

WE ARE always interested in the men who can make things go, who make the wheels go round. Who are the chauffeurs of our day? Who are guiding the cars and giving us security out on the highways of progress? I have come to say that vocational education is a good chauffeur, and is contributing much to the security of our journey. I do not need to define vocational education to this group. I am thinking of it in its broadest sense. Any work in which one earns his livelihood is a vocation. Any training he receives which improves his vocational efficiency, is vocational education. I wish also to acknowledge the value of all worthy curriculums, as possible contributions to vocational efficiency. In a sense, all education is vocational, for it may be used in one's work at some point. But we shall consider in this discussion that form of education which deals directly with the preparation of an individual in the knowledge, skills, and attitudes that concern his life work or vocation.

The need for education in this phase or field of a man's life, is becoming

more and more apparent, as the years arrive. The old masonic doctrine still holds good, eight hours for labor, eight hours for recreation and eight hours for sleep. And it is right and proper that one's education should not be neglected in any major realm of his life. Perhaps too much of our educational program has been centered in the so-called cultural and recreational, and not enough in the vocational.

We see evidences of confusion of demands for vocational education these days. The conflicting or over-lapping set-up by our government, of various plans of vocational education, especially for out-of-school youths and adults, is a bit disturbing to the friends of school education. Do you know about these various agencies now developing all about us? Do you know what this may mean to our public school education? Here is the set-up in the nation today, affecting and directing programs of vocational education.

NATIONAL SET-UP CONCERNED WITH VOCATIONAL EDUCATION

I. U. S. Office of Education—Department of Interior

1. Commissioner of Education.
2. Federal Board for Vocational Education, recently reorganized.
3. Administers Smith-Hughes, Vocational Education plan.

II. F. E. R. A.—with its Educational Emergency Relief

III. Apprenticeship training—Labor Department

1. Classes set up in factories and shops for apprentice training.
2. Under separate boards and directors.

IV. C. C. C. Camps—War Department

1. Educational Advisors
2. State and National Officials directing.

V. Work's Program Administration—Department of Interior

1. National Youth Administration.
2. Federal Board with state directors of out-of-school youth and adult education programs.

While all of this is more or less an emergency program, it indicates the feeling of need among the people of the country for a larger and more active plan for vocational and adult education. It would seem to indicate that the public schools have not measured up to their full responsibilities for the education of the people. Dean Emeritus Eugene Davenport said many years ago, "The existing system of secondary schools, tho universal in its invitation to students, is builded upon old

line policies of restricted human interests. They cannot by these policies appeal to the masses because they ignore the immediate and personal interests of the common man. If any man is to be educated, that education must touch him, first of all, at the point of his daily activities, in general, his occupation; and in order to reach the industrial people as such, we must have a form of education, designed for them, and with special reference to the industries upon which they depend for their existence. This can be attained in two distinctly different ways; it can be attained by broadening the existing system to include the industries and the interests and needs of industrial people; or it can be accomplished by a separate system, of schools. If the former alternative is to be taken, the academic people must take the lead, and they must do it now, for the industrial people are exhibiting numerous signs of a disposition to take the matter in their own hands. If they do that, they will establish separate schools of industry, in which they will be encouraged by certain educators and we shall have the spectacle of the ninety-five percent seceding from the five percent, driven out, not by numbers, but by tradition, to the great disadvantage of both parties, and the ultimate sacrifice of a large body of knowledge, that ought to come into the possession and enrich the lives of the masses of men of all occupations."

THE Dean's teachings and philosophy of unity in education have had much influence in bringing about the unity of vocational and general education. We have enjoyed this under the Smith-Hughes Vocational Education Act. Now there appears on all horizons, this old threat which the Dean feared, the springing up of systems of education apart from, and independent of the long and well-established public school system. Dr. Prosser believes that these various set-ups will blow up, and that after the emergency is over, and the money all spent, we shall go back to the Federal Board for Vocational Education, either as an independent board co-operating with the schools as before, or an advisory board in the Office of Education. Professor Mays of Illinois believes that the general education office is not as yet sufficiently sympathetic to vocational education to be entrusted with our destiny. Unless our public school administrators see the handwriting on the wall, and follow the example of hundreds of progressive school men, who are opening the doors of the public schools, to evening and part-time classes as well as to all classes in vocational training, then we shall see this work slipping away and being placed under non-professional administration. Of course, in that event, as they are doing now, the administrators of these various agencies of education, are forced to turn to the public schools, for leadership, teachers, curriculums, rooms, and equipment. But I believe that if the schools were given

the extra millions, now granted to these various agencies, that we could administer and teach all the nation needs, for both old and young. Will our school administrators be willing to accept this larger opportunity for service? Herein lies security for all public education, the admittance of vocational education into the front door of the public schools.

THE critical attitude, toward the public schools, assumed by many, even in high places, is not a very wholesome sign, in education. A principal of a certain high school was recommending some vocational courses to his board of education, when the banker member raised the old protest question, "What's the use of all this vocational stuff in school any way?" The principal queried, "Well, what's the use of the high school?" "Heck, that's what I'd like to know too," replied the board member.

Last month, there was created at Washington, a special commission to investigate present-day youth problems which "may constitute a fundamental threat to national welfare," according to the American Council of Education. An \$800,000 private grant is to finance the five year inquiry to determine whether the school system is out of joint with current social and economic conditions, and to prescribe remedies.

Dr. George Zook, president of the Council, stressed "the part youth plays in the present day crisis," and said that of all arrests reported to the justice department in 1934, 115,000 or 37 percent were under 25 years of age, and 15 percent under 20.

The Commission appointed includes Newton D. Baker, secretary of war in the Wilson cabinet; Robert M. Hutchins, president of the University of Chicago; John W. Studebaker, Federal commissioner of education; and Dorothy Canfield Fisher, author.

Dr. Zook, a former commissioner of education, said that altho full details of the commission's work had not been mapped, it would embark on a four-fold undertaking.

1. A comprehensive analysis of the characteristics of youth, and an evaluation of the influences to which they are subject.
2. The continuous study of commonly accepted goals, in the care and education of American youth, for the purpose of determining the adequacy of these goals in relation to present, social, economic, and political trends.
3. The investigation of agencies concerned with the youth problem, and the eventual recommendation of procedures, which seem to influence young people most effectively.
4. The systematic popularization and promotion of desirable plans of action, thru conferences, publications, and demonstrations of promising procedures."

I go into all this detail of the plans of the commission to show the trends of thought, turned as search lights upon our educational system, and to express what I believe is the willingness of vocational education leaders, to have this, and all other fair-minded commissions, measure vocational edu-

cation, by such standards of usefulness and service to youth and to the people.

We believe that vocational education "clicks with the times."

The reports of the State Boards of Vocational Education to the Office of Education, shows at least statistical satisfaction, and outlines definite needs and tendencies.

I. Statistical

Total enrollment (1934) in all types of Vocational Schools and classes, over 1,119,000. Among these were about 370,000 adults, 261,000 youths in part-time classes, and 488,000 boys and girls in full time school attendance, taking Vocational Agriculture, trades, and industrial and home economics courses. There were decreases in enrollment in all types of vocational schools, except in the field of agricultural education.

II. Some urgent problems in the field of Vocational Education

1. The educational needs of the out of school youth, ages 14 to 21.

It is not to the public's welfare that these young people be neglected in the most critical habit and character forming years of their lives. The public schools should take over much of this responsibility, and the principal interest here lies in the vocational field.

There is a marked tendency to prolong the school period which places more responsibility upon the schools, along vocational lines.

2. Need for occupational adjustment training among adult workers. Changes in the economic, industrial, and agricultural fields would force this need upon adult workers in all vocations.

3. The unemployment situation forces new angles to the problems of vocational education. It may be a matter of occupational adjustment or maladjustment. Vocational education of the proper sort may be a way of bringing back a worker into employment, or by readjustment of his work, make it more successful as in the case of the Agricultural Adjustment Plan.

Any social or economic security added thru vocational education, most certainly affects favorably the security of the individual, and vice versa. Altho it could be shown that vocational education is a cultural, social, and moral asset to a people, we make larger claims for it, as an economic asset. All education raises the standards of living, and is therefore of economic value. Vocational education not only tends to raise the standards of living among its recipients, but it helps them to realize these standards, thru greater earning power, and thru individual skills. A young man or woman may come thru an educational course, having acquired good tastes and great desires for the good things of life, and yet be unable to do anything about it, unable to realize the material standards of life, sought. On the other hand, a young man or woman, having taken vocational training, may acquire the same tastes and desires for the good things of civilization, and in addition, will be able, with his own hands to create the stand-

ards he desires. This is genuine and unshaken security in the economic world.

We need to say to the people, most positively and enthusiastically, that the schools, especially when buttressed by vocational education, are not tax eaters and the teachers are not pay-rollers. They are as essential as the police force; they are as important as Congress. They are as stabilizing as business. They are the undergirders and steel framework of our civilization. "Let us remove the things that are shaking, that the things that are unshaken, may abide."

*Address before the Indiana Vocational Association, Oct. 17, 1935.

Get Along, Ag Teacher, Get Along

THERE should be no embarrassment on the part of any teacher in letting it be known that he is deeply concerned about his salary and his desire for advancement in opportunity for service. After all, teachers are human and are motivated by the same desires as other individuals when it comes to the matter of reward for work well done. That point of view can be accepted without further comment. The more important phase of the question has to do with certain personal factors that make advancement possible. Educational literature abounds with discussions on qualities of merit in teachers. Each teacher can read these materials and profit by them according to his ability and desire to improve. The main purpose of this brief chat is merely to remind teachers of a few factors that seem important and fundamental to a program of professional advancement.

Factors to keep in mind when one wishes to "get along" better in his work are:

1. Full utilization of one's intellectual abilities

"I don't have to use all my brains in the present job." Perhaps that is one reason why this teacher finds it difficult to advance. The happiest, most contented and the most useful people are those who are working at full capacity both physically and intellectually. Intellectual idleness breeds discontent. Each teacher should study his own mental abilities and plan a program to run at full speed on whatever community level he happens to be working. One may become too big for his job but he must keep going, and growing, if he wants to advance. Fortunately indeed is the teacher who has found a worthy use for his best talents.

2. Right professional attitude.

The teacher who has a genuine interest in his work, in his students, and in the folk with whom he works will readily win deserved promotions. Capacity to co-operate with others and a willingness to accept suggestions are desirable traits that aid in professional advancement. The beginning of a new year is an appropriate time for each teacher to make an unbiased inventory of the personal attributes that may be con-

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Methods



Making Field Studies Effective

A. H. HAUSRATH, Department of Vocational Education, Ames, Iowa

WITH any instructional problem arising in class the best possible method of attack should be followed. Problems may call for fact-finding in books, bulletins or other printed sources; from surveys, interviews, conferences, from demonstrations or laboratory experimentation; from field studies; or from some other source. It is the purpose here to discuss only one of these avenues of experience, the field study.



A. H. Hausrath

As the name implies, field studies are studies conducted in the field. They are appropriate when the best learning situation to achieve a desired end may be found outside of the school building. Seed corn may be judged and tested in the school laboratory but it should be selected in the field. Weed identification and control can be studied in the classroom but field study, at least as a supplement to classroom study, would be unquestionably superior.

A field study should always be undertaken as the best means of fulfilling a particular study need, rather than good-natured acquiescence to the popular request of pupils, "Let's go on a field trip."

Success with field studies, like all other teaching situations, depends on a carefully prepared plan of work followed by intelligent execution of the plan.

Planning Field Studies

The story is told that Napoleon's revision of the admonition "Always have a plan" was "Always have two plans," in case one could not be used. This is particularly important with field studies. Weather has the propensity of interfering with outdoor work. Plans for field studies should be contingent upon events that might interfere. The alternative procedure should not ordinarily substitute for the field study, but merely allow its postponement until conditions are more favorable.

In arranging for the field study the following suggestions are offered:

1. Start with a definite educational purpose, a problem to be solved or an activity to be carried out. Perhaps the topics of weed control and pasture improvement seem appropriate for study. This study may be undertaken as a

project: the actual reconditioning of a weedy pasture; or as a problem: developing a plan for reconditioning a weedy pasture; or as a desired ability: learning how to control pasture weeds. The more challenging the purpose the better, but in any event there must be a purpose if the pupils are to put for their own effort.

2. Determine what sort of a field situation is needed to furnish the best learning opportunity. In the case referred to above a weedy pasture is needed, preferably one with several different types of weeds prevalent, and, if available, such a pasture near the school.

3. Consider possibilities and select the best field situation available. Weedy pastures may be found on Jim Brown's farm, the Billings farm and on the Old Bradley Place, all within reasonable distance of the school. Of these Jim Brown's pasture is the best probability because it is the only one of the three that is owner-operated and Mr. Brown is progressive and co-operative.

4. Secure the co-operation of people whose property is involved. A personal conference is preferred but in certain rare cases a telephone conversation or even a written or oral message may suffice, particularly if the person involved is a parent of a class member. In this conference it seems desirable to

- (a) Explain the purpose and requirements of this particular field study.

- (b) Agree upon what is to be done and what stock, equipment, materials, supplies, and help are to be provided.

- (c) Set the time and date, making arrangements in case of inclement weather or other adverse conditions.

5. Arrange for transportation, if needed. This matter will be discussed more fully later.

Planning the Field Study with the Class

In planning the field study it is desirable to have the class participate as fully as it can. A definite help in making the field study effective is to have each pupil prepare his own worksheet in advance. This can be developed in class discussion. Each pupil should then take his work sheet with him on the trip and use it to guide and record his observations and activities.

In planning the field study with the class an order of procedure similar to that given below may be used.

1. Establish the problem or the purpose of the activity to be undertaken.

2. Decide what should be done during the field study. This is the part

that may take shape as a specific work sheet in each pupil's notebook.

- a. Note questions to be answered.

- b. Note observations to be made and recorded.

- c. Note activities to be performed.

- d. Note samples, specimens to be collected.

- e. Note other appropriate activities.

3. Decide upon a sequence of work and a division of responsibility for the activities to be carried out, if observations are to be scattered and work is to be divided.

4. Come to a definite understanding regarding the details of getting there and back safely and orderly during the period.

During the field study it is probably best to confine note-taking to brief statements and if samples are collected to provide for their orderly arrangement. Detailed reports or final notes may be more conveniently written at school.

Checking on Results

A thoro check-up on results achieved for time and effort expended on field study is not only a sound economic principle but is a stimulus to both teacher and pupils to make such experiences as educative as possible. Two suggestions are offered:

1. Some objective evidence of individual achievement is desirable. This might take any of several different forms: (1) Work sheets may be completed, (2) collections made, as of weeds, (3) notes taken, (4) decisions recorded, as in placing livestock, (5) report written, (6) exercise completed, as tree pruned, or (7) quiz questions answered.

2. Some record of each pupil's achievement on the field study should be recorded. Consider quality first, quantity second. While such a check-up need not be formal, it should be none-the-less systematic and thoro. This does not mean emphasis on trivial or irrelevant details of the field study, but instead a clear and positive grasp of the fundamentals.

There are some advantages to written reports. In the first place they provide a record for future reference and study. Secondly, to put anything into writing causes one to think about it more carefully, to organize it more definitely, and therefore to clinch it more firmly in his memory and understanding. Little is gained, however, if the written report calls for a mere recital of experience. Likewise, if the report calls for statements of direct observation, little opportunity is afforded for thought. In preference to this the report should cen-

ter about critical evaluation, discovery of a hidden principle, deductions from observations, or interpretation of results.

The skillful teacher will find ways of checking-up on field studies which call for a maximum of careful, independent thinking with a minimum of writing, and which definitely contribute to the desired educational outcomes.

Details that Insure Success

Each experienced teacher will no doubt have his own special list of details which he considers important enough to give attention in planning and conducting field studies. The writer believes that details pertaining to the following matters deserve consideration: (1) standards to be observed on field studies; (2) routine details; (3) supplies and equipment; (4) division of work; and (5) transportation.

Each of these will be discussed briefly. In practice many of these details should be worked out with the class, others arbitrarily decided and announced to save time.

1. Standards to be observed on field studies.

Parents and patrons of the high school rarely visit the school. They form their opinions of what goes on in the classrooms from what they hear pupils say, and from what they observe on those occasions when they see the class at work. Field studies put the teacher, class, department, and school on exhibit. It is strange teachers do not realize this more fully. Many teachers feel field study is the occasion to relax on the disciplinary and study standards observed within the school walls. While more freedom is naturally felt by pupils on field studies, there is an obvious need for the observance of standards that insure orderly study. The teacher who insists upon high standards of field studies will gain more in respect of pupils and community than he thinks (erroneously) he will lose in good will. Not only in the matter of scholarship, but also in conduct, standards must be high. In appraising the work done on field studies the rule might well be "nothing short of one's best." Quality of work should stand foremost; quantity is secondary.

One of the writer's high school classes worked out the following standards to be observed by pupils in their field study activities:

- W ork attitude
- O bserve closely
- R espect people and property
- K eep together

They decided that field study should be characterized by a work attitude rather than a play attitude, that close observation would be necessary to get the most from their field study and therefore if the class kept together it would facilitate observation and make teacher-pupil discussion more worthwhile. Crowd spirit, they decided, frequently leads pupils to forget the courtesies, care and protection they should show to others and their property.

The writer has observed some classes in which pupils smoked during the field study, with apparent unconcern on the teacher's part. A much more common

procedure is to throw things at each other or imaginary "targets." A general and simple behavior standard for field studies might be set up by sanctioning whatever behavior is considered acceptable for laboratory work within the school.

2. Routine details.

Such details as apply to the general routine of the school should be meticulously observed. Time standards should be watched and arranged so that field studies do not run over, interfering with other responsibilities of pupils. Attendance should be checked and other routine duties performed. Inform the school principal in advance of contemplated field study and check with him to insure against misunderstandings and possible conflicts because of shortened periods, special assemblies, or other schedule changes.

It is well to announce the trip the day before, reminding pupils to dress appropriately and to bring such materials as will be needed.

MASTER TEACHERS AND FRESH AIR

Socrates taught in the streets, Plato in a grove; Aristotle's school was called the Peripatetic, because he taught walking among the trees; the Stoics were named for the Stoa, or porches, where their classes were conducted; the Epicureans met in the gardens of Epicurus, and the Prince of Teachers taught by the seaside and wayside. The world's greatest teachers have ever loved the freedom and inspiration of the open.—Henry E. Bennett, *School Efficiency*, p. 37.

3. Supplies and Equipment.

Many otherwise good teachers are extremely lax about school and personal equipment; pupils are characteristically so. No alternative presents itself to the teacher but to issue supplies and equipment systematically.

If each pupil is to be provided with the same material, issue it all at once, preferably before leaving the classroom, and put away the extra pieces. At the end of the field study the teacher should personally check in each pupil's equipment and unconsumed supplies, holding each pupil individually accountable for all materials issued. A careless and slipshod method of collecting equipment is to tell the class to "put the tools away" or "lay them on my desk." Avoid such practice.

More frequently, equipment and supplies must be shared by several pupils. In this case it is well to organize the class into groups, appointing a leader for each group, issuing materials to him, and holding him accountable to check them in when thru.

Materials, to be used on the field study, which pupils normally provide for themselves, should be designated the day before. Notebooks, writing materials and work sheets are examples of this kind.

It occasionally happens that pupils are called upon to furnish their own special equipment for a field study. Thus pocket knives may be needed on a special occasion. Pupils are extremely forgetful. The wise teacher will make the request two days ahead, and again the day preceding. It might help to

provide a depository at the school for such equipment brought in ahead of time.

4. Division of Work.

On some field studies it is necessary to divide the job among the pupils so that each pupil or group will perform a different activity or function. Such division of responsibility should be systematically made. If group organization is appropriate, use it, under competent and responsible group leaders.

5. Transportation.

Transportation is one of the most important and most troublesome details connected with field studies. Where the distance is short, walking is to be preferred but ordinarily the field study is so remote from the school building as to require transportation.

When conveyances are to be used, probably the best arrangement is to use regular school or chartered busses. Accident liability is provided on such public carriers and the class can be transported in one unit, the teacher supervising the driver and class. Unfortunately many schools have no such provisions.

A practical alternative for a school bus is a four-wheel departmental trailer which can be built in the school shop at little cost. With proper design and construction such a trailer may be built to accommodate as many pupils as a fair-sized bus. One Iowa teacher, Neil E. Johnston of Clarinda, uses such a trailer to take his class on both long and short trips. (See page 155.) He hitches the trailer to his own car, has the class in one unit and under his complete management. This arrangement appeals to the writer as a happy solution to a difficult problem, and one which should be more generally copied.

The next best expedient is the use of private automobiles. There is always considerable element of danger with automobiles, but proper precautions will minimize this danger. While it is preferable to have responsible adults, ideally the parent-owners of the cars, drive them, this is rarely possible except on extensive all-day trips.

Too frequently pupils in the class own cars which are freely offered for field studies but which are unusually dangerous risks because of reckless drivers and poor mechanical condition. Moreover such cars are rarely insured. Avoid such cars completely. Occasionally another teacher in the school has a free period and would gladly accompany the class and drive his own car.

Careful, advanced study of this problem will likely reveal certain parents who will allow their boys to take the family car for occasional trips. Among these families, represented in the class, one can usually find a sufficiently large group of dependable and competent drivers, whose cars are protected by collision and liability insurance. By advanced planning of each field study, such cars can be solicited and promised by the pupils after consulting their parents.

Some plan for reimbursement is only fair but it complicates the insurance protection, which is usually invalidated

(Continued on page 155)



Supervised Practice



Getting Boys Established in Farming

G. A. SCHMIDT, Teacher-Trainer, Colorado

TWO boys enrolled in the vocational agriculture course in the high school. One was John Doe. Let us call him Illustration A. What was the nature of John Doe's project work? His first year he undertook to raise a little patch of sweet potatoes; the second year he raised a little patch of Irish potatoes; the third year he managed a small poultry flock consisting of twenty-five hens; and in the fourth year he fattened two barrows. In other words, John Doe got a little experience with a farm enterprise one year; then disregarded that experience and took up a different form of enterprise the next year. He continued this procedure for four years during which he was enrolled in the vo-



G. A. Schmidt

cational agriculture course. He was "projecting" or jumping around from one farm enterprise to another thru his entire training period. Each year found him no better off than he had been the year before. His last project was of a kind that would compel him to sell out completely when the product was ready for the market. As a consequence, John Doe got absolutely nowhere during the four years he spent in vocational agriculture, and was little better off at the end of his training period than he was at the beginning as far as getting established in farming is concerned. Instead, he was left in a most excellent position to leave the farm and take a job in town where he fortunate to get one. He had nothing of his own that would help tie him to the home farm, keep up his interest in farming, and give him a start in becoming established in farming.

John Doe's project program, unfortunately is no different from the project program of entirely too many boys enrolled in vocational agriculture. One is

tempted to say that it resembles what is almost the typical case.

John Doe's projects had been something done to meet a requirement rather than something done to prepare a boy for farming and to help him become established in farming.

The other boy enrolled in vocational agriculture was Bill Doe, John's cousin. We will call him Illustration B. The nature and scope of Bill's supervised home project work was very different from John's. Bill started out in the fall of his first year's work in vocational agriculture with two young heifer calves and a young gilt pig; and with a whole-hearted and purposeful determination to grow into the business of milk and pork production. It cost Bill Doe \$35 to make a start in these two farm enterprises. He made the start at the cheapest possible stage of each enterprise—a stage at which most any real farm boy can make a start. The two projects Bill started in the fall of his first year's work in vocational agriculture were continued on a gradually enlarging basis each year. During his third year's work in pork production, after he had accumulated some experience in the enterprise and more capital with which to buy better stock, Bill shifted to raising pure-bred swine. Also, in the spring of his first year's work Bill bought one hundred baby chicks from which he selected fifty good pullets for a winter egg laying project in his second year's work. At about the same time Bill put in a two-acre pasture for use by his heifers, sows, pigs, and poultry; and two acres of wheat for feed for his livestock. Thus Bill, during his four years of work in vocational agriculture grew into the business of farming on a gradually expanding basis. Compare his four years of training in vocational agriculture with John's.

The capital Bill needed in making his start, \$35, in the fall of the first year and an additional \$15 in the spring, totaling \$50 in all.

The right-hand column of Illustration B shows Bill's capital worth at the end of his four-year training period. It does not show, however, the cash he had in the bank which he had accumulated from the sales of his stock and livestock products.

It is doubtful whether a mule could pull Bill away from the farm now; he has too much to hold and anchor him there, and too bright a future.

No one becomes established in any line of work without making a determined and purposeful start. That generalization is as true in farming as in any other business or profession. Making the right kind of a start is highly important. And almost any boy enrolled in vocational agriculture can and should make that right kind of a start.

The big problem in developing and training future farmers is not, as it is in the trade and industrial schools, the placing of a boy at the completion of his training period, in some occupa-

ILLUSTRATION A

Just "Projecting" Around—No Evidence of a Supervised Farming Program Being Developed

Enterprises	First Year	Second Year	Third Year	Fourth Year	Estimated value at completion of course
Sweet Potatoes....	¼ acre				
Irish Potatoes.....		¼ acre			
Poultry.....			25 hens		
Swine.....				2 barrows	\$30.00

ILLUSTRATION B, A FARM TRAINING PROGRAM TO HELP A BOY GET ESTABLISHED IN FARMING

Estimated Capital Needed at Start	Enterprise	First Year	Second Year	Third Year	Fourth Year	Estimated Worth at End of Fourth Year
\$ 30.00	Milk Production	2 heifer calves	2 heifers	2 cows	3 cows	\$300.00
			1 calf	1 heifer	2 heifers	100.00
				2 calves	2 calves	300.00
5.00	Pork Production	1 grade gilt and litter	1 grade sow and litter	2 p. b. sows and litters	4 p. b. sows and litters	600.00
			2 p. b. gilts and litters	2 p. b. gilts and litters	4 p. b. gilts and litters	600.00
10.00	Poultry Production	100 Chicks	50 pullets	100 pullets	100 pullets	100.00
			200 chicks	200 chicks	200 chicks	100.00
4.00	Pasture Grass Production	2 acres pasture	2 acres pasture	2 acres pasture	4 acres pasture	100.00
1.00	Wheat Production	1 acre wheat	2 acres wheat	2 acres wheat	4 acres wheat	150.00
	Corn Production		2 acres corn	2 acres corn	4 acres corn	100.00
	Potato Production			1 acre potatoes	2 acres potatoes	200.00
\$ 50.00					Total	\$2380.00

tion. The problem of the teacher of vocational agriculture is rather one of helping the boys to grow into the business of farming; of making each year of a boy's school and home work in vocational agriculture an important and direct forward step toward that ultimate goal. (In this connection refer to an article by the writer in *Agricultural Education*, of December, 1934.)

In the last analysis it is not a difficult task for a teacher of vocational agriculture to help his boys make the right kind of a start toward that desired goal. All that is necessary is a small and inexpensive beginning in two or three of the right kinds of farm enterprises. These enterprises should be of a kind that will steadily and gradually increase each year in scope and, also, wherever possible, in quality. Each succeeding year, also, the boy should add one or two new enterprises to his training program. Such a scheme gives a gradually expanding program that will at the completion of a boy's training period, or a few years thereafter, bring a boy into a position where it will be easy for him to become established in farming.

Remember this story of John and Bill. John got nowhere, and Bill got somewhere. Bill made the right kind of a start; and John just kept "projecting" around.

For real cases of real boys who have successfully carried out real farm training programs such as that of Bill Doe, communicate with W. Arthur Ross, National F. F. A. Secretary. He will furnish you with the ideas and the inspiration that led to the writing of this article.

An Orchard Class Project

R. A. FORDYCE, Teacher of Agriculture,
North East, Pennsylvania

A RECENT class project at North East was the management and operation of a seven-acre apple orchard, approximately 200 trees, for a period of four years. The orchard obtained was so badly run down the owner was considering pulling it out. A five-year lease on it, under the circumstances, was readily obtained. By its provisions, we were to have all we could make for two years and two-thirds of the crop for the next three years. The owner reserved apples for his home use.

The first year we pruned it lightly and plowed and disced it, after cutting the sumac; fertilized with 800 lbs. of nitrate of soda, and sprayed it once. Since there was no bloom we did not continue spraying. Before we realized they were present, considerable damage was done to the foliage of several trees by canker worms. The season was so dry that little or no benefit was derived from our treatment the first year.

The second year, when sufficient rainfall made the nitrate available, brought different results. Five hundred pounds of nitrate of soda were again applied. The orchard was sprayed five times. Part of the apples were thinned. The trees made excellent growth and during the fall presented a pleasing sight with their glossy green foliage, very large leaves, and abundance of well-colored fruit.

Prices were very low at harvest time

because of financial conditions. Since the school had no facilities for marketing the fruit we contracted with a local boy to pick and market it.

The crop amounted to between 600 and 700 bushels, largely fall apples. It paid all expenses, including spray materials, and netted approximately \$100 for the club treasury.

The third year we pruned about half the orchard a little heavier than previously, especially thinning the small branches. The remainder we did not get finished because of time limitations. In this year we added 500 pounds of cyanamide as the leaves were getting started. The orchard was sprayed six times.

The harvesting was done largely by the pupils, but it took much time from school. The boys did practically all the grading and packing. We built a very cheap packing table and grader combined, with a beaver board bottom sloping to the front. Holes $2\frac{1}{2}$, $2\frac{3}{4}$ and 3 inches in diameter were bored thru pieces of beaver board placed across the table near the center. Most of the grading was done by hand. The gauge was used only when there was doubt as to the size of the apples.

For maximum efficiency grading jobs had to be assigned. One boy placed apples on the table, five stood by the table and graded, four ring packed, and one covered and stacked the finished baskets. The supervisor helped to grade and watched results very closely.

After grading and packing another hundred bushels the boys went out to sell. They canvassed the town of North East street by street, selling about 50 bushels of Spies, Greenings, and Baldwins. Samples were used in selling which required only two classroom periods. One of the boys furnished a truck for delivery purposes. Delivery and collections required a half-day of school time.

The apples sold at \$1 per bushel when the prevailing market price was 75 to 85 cents. There were two reasons for our getting the higher price: (1) our apples were very closely graded and were packed in the best possible manner, and (2) the apples were produced by the school. We were able, however, to get the same price for the next 50 bushels sold to a dealer in Erie.

The expenses were much heavier the third year than in any of the first two years. Yet we were able to pay for fertilizer, spray bills, baskets, hired labor, storage, and hauling, and had left about \$125 for the club treasury.

The fourth year the orchard was pruned somewhat heavier than before. Eight hundred pounds of sulphate of ammonia were added early in May. Several trees of undesirable varieties were grafted to Delicious and Macintosh. The orchard was sprayed completely six times.

This year was an "off" year for Spies and Baldwins. Scab was difficult to control because of heavy rains in May when the most important scab sprays are applied. Because of these two conditions our profit from this orchard project was negligible, probably not more than \$50.

There are Dangers and Difficulties

Any discussion of the class project which fails to disclose its dangers and its difficulties is both unfair to the subject and misleading to the reader. The class project very definitely is not a "bed of roses." It requires much hard, dirty work which pupils should not be expected to do attired in their school clothing. Pupils must "dress the part." Spraying, for example, is a very dirty and very laborious job.

The school orchard project requires extra time. The school day is too short for the spraying of a very large orchard if any sprayer trouble develops (and it always does). Saturdays will frequently have to be given to class project jobs and fishing and comparable recreation foregone.

In planning this type of work, detailed arrangements for the land must not be overlooked. Since few schools own sufficient land it will have to be leased. In order to avoid embarrassing misunderstandings a written lease stating all conditions should be drawn up. It is grossly unbusinesslike to put in a crop on someone else's land without a written contract.

Marketing produce presents perhaps the biggest problem. We can produce a fair to good, or even fancy, product of almost any kind but it is becoming increasingly difficult to market at an advantage.

During the summer it is a problem to get work done by pupils at the right time. Spraying or picking tomatoes, for example, cannot be postponed. Temporizing will mean failure.

The problem of financing a class project must be solved. This involves difficulty. Someone must furnish money: the teacher (as a gift or on good faith); the bank (with proper security); or the local dealers from whom you buy (book credit). We have used all these means.

All the details of getting team or tractor labor; of getting a contract for products (tomatoes, for example); of transportation of product to market, etc. must be met. The class project really tests the skill, the nerve, and the ability of both class and teacher. Conducting a class project will cost the teacher time, effort and money, but in the end I think it is vastly worth while. My boys are quite enthusiastic about it and we are looking forward to the time when we may conduct a larger and more profitable class project in poultry in which the class will own everything and will carry the enterprise thru from the building of the house to the marketing of the eggs.

Book Review

Supervised Farm Practice—by H. W. Sanders, Professor of Agricultural Education, Blacksburg, Va. A mimeographed publication of 50 pages designed primarily for pupil guidance in using the Virginia Farm Practice Record Book. However, teachers of agriculture will find many helpful suggestions that will aid them in directing this important phase of their programs even tho not using this particular record book. Single copies fifteen cents to cover cost of mailing. Place order with the author.



Studies and Investigations



Measuring the Efficiency of Programs of Vocational Education in Agriculture

C. S. ANDERSON, Professor Rural Education,
State College, Pennsylvania

IT was my privilege to work with a group of 25 experienced teachers and supervisors of vocational agriculture on the problem of measuring the effectiveness of programs of vocational education in agriculture last summer at the Colorado State College. Every man in the group had a teaching position, a school and a community from which he could draw his facts and to which he could apply the principles developed. There were no hypothetical cases. We assumed at the outset that, of course, all supervisors and teacher-trainers are constantly and vitally concerned with the problem, and that while teachers of agriculture may not always be able to do much to remedy certain conditions, they will be able to do more if they are familiar with a basis on which school and instructional efficiency is generally evaluated than if they have not had contact with efficiency measurement procedures.

The Alabama Survey

We began with a consideration of the Alabama survey. The Federal Board for Vocational Education, in conjunction with the vocational supervisors and teacher-trainers in Alabama, conducted a state-wide efficiency survey of all branches of vocational education in Alabama. The report served as a detonator to our problem, and as a means of clarifying in the minds of the group the general aims of the course.

The factors for all forms of vocational education for evaluating courses in vocational education as developed by the Alabama survey committee were as follows:

1. Instruction to be effective with vocational students must be given to selected groups. The individual must be able to profit by the instruction and to use it satisfactorily.

2. The subject matter to be taught must be such as directly functions in the work for which the pupil is being vocationally trained.

3. Instructors must have been occupationally trained in the trade or occupation in which they are employed and assigned to teach.

4. Individual instruction should be given whenever necessary to the prog-

ress of any member of the group.

5. Each individual member of the group should be allowed to progress as rapidly as ability will permit and a teaching procedure which readily permits of this practice should be followed.

6. Effective training for work can best be given on real jobs.

7. All subject matter and training

should be arranged in the most effective instructional order of difficulty, of seasonal sequence, and in close conformity with the established order in the given trade or occupation.

8. The pupils while being trained should be placed in an occupational atmosphere and environment.

9. The instruction and training should be placed upon prevailing occupational standards.

10. Adequate repetitive training in the various skills and operations should be given the learner.

11. Provision should be made for follow-up of all trainees who have been in the course for a reasonable period of time.



C. S. Anderson

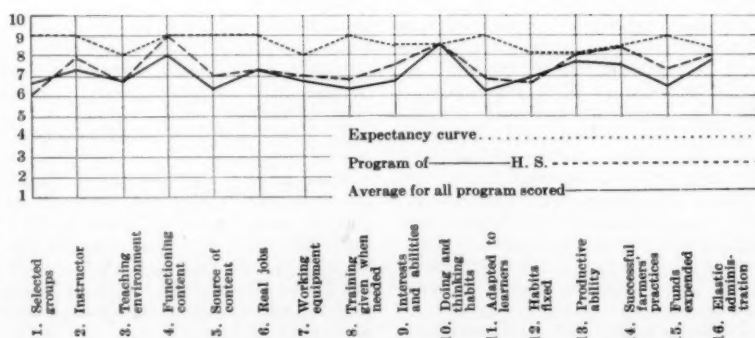
MEASURING THE EFFICIENCY OF PROGRAMS OF VOCATIONAL EDUCATION IN AGRICULTURE

School: Kirbyville, Texas

Teacher: Charles B. Barclay

Standard: No. 3—"The training environment should resemble the subsequent working environment."

TESTING POINTS	Comparative Value	Rating	Product of Rating by Comparative Value	Reasons for Rating
1. Nature of the projects.	10	9	90	Only a very few of the projects are not real production farm enterprises.
2. Teaching use made of farms in the community.	10	9	90	Teacher and class go out frequently to farms.
3. Problem solving. (Are the problems from boys' participating experiences.)	10	8	80	Often far-fetched and difficult to accomplish.
4. Kind of lesson units. (Farm enterprises, cross sectional plan.)	10	6	60	About one-half of the instruction is on farm enterprise basis.
5. Nature of farm shop instruction.	8	2	16	Inadequate. That given is too largely of manual training type.
6. Appearance and equipment of school shop.	5	2	10	Actually not much real farm shop work taught. Inadequate equipment.
7. Appearance and equipment of agricultural room.	5	5	25	Well located, well equipped, very desirable.
8.				
(A) Sum of products obtained by multiplying the comparative values by rating.			371	
(B) Sum of comparative values.			58	
Score on standard. (A divided by B)			6.39	



12. Efficient use should be made of accepted educational procedures, methods and devices with regard to: (1) character of the teaching job, (2) characteristics of the instructional group, and (3) the working conditions.

Basic references were "Efficiency in Vocational Education in Agriculture" by G. A. Schmidt and "Vocational Education in a Democracy" by Prosser and Allen. These two books, both written some time before the conduct of the survey in Alabama, formed an important basis for it.

Doctor Schmidt advances sixteen standards for vocational agriculture instruction. With slight changes in wording they are as follows:

1. Vocational instruction in agriculture should be given to a selected group which needs it, wants it, and is able to profit by it.

2. The agriculture instructor must be occupationally competent in the practices he teaches.

3. The training environment should resemble the working environment.

4. Agricultural skills and technical knowledge included in the teaching content should function directly in the work for which the pupils are being trained.

5. The content of the training should be obtained from reliable sources, largely from the experiences of masters in the occupation of farming.

6. Training in vocational agriculture should be given in a large degree thru participation in actual farming practices.

7. The training practices should be carried on in much the same manner as in the occupation itself, the same decisions, the same operations, the same tools, and so forth.

8. Vocational instruction in agriculture should be offered as closely as possible to the time when the learners need the information and help, and in a manner most helpful to them.

9. The training should serve to stimulate individuals to capitalize their interests and abilities.

10. Vocational education in agriculture should train individuals in the thinking habits and in the manipulative habits required in the farming occupation.

11. The methods of instruction employed should be chosen with the particular characteristics and needs of the group to be served in mind, as for example, the all-day, the part-time, and the evening class groups.

12. The training experiences should be repeated until right habits of thinking and doing are fixed.

13. The training should be continued to a point where it gives the learners a minimum productive ability necessary to succeed in the farming occupation.

14. Vocational education in agriculture should provide the training which approaches the practices of the successful farmers of the community.

15. The funds available and expended should be sufficient to permit the carrying on of a complete and effective program of work.

16. The administration of the vocational agriculture course should be elastic and should not be interfered with

too greatly by traditional school regulations.

Application of the Standards

The standards were taken up by the class at the rate of about one each day. Testing points for use in applying them to concrete situations were developed. Comparative values ranging from 1 to 10 were agreed upon and assigned to the testing points. Each teacher then gave his school a rating, and also indicated briefly his reason for the rating. A numerical score for each standard was computed.

Curves indicating the scores made on each standard were plotted by the members of the group and these compared with composite scores for the class. In this way each teacher could readily see the most vulnerable spots in his particular program.

As an end-of-the-course assignment a teacher was assigned to each standard and asked to be responsible for bringing to the group a summary of all the significant points pertaining to the standard. The class had access to all score sheets and other materials prepared and handed in by the group during the course. Each then organized his report under three main headings: what frequently prevails, what is to be desired, and the most effective ways to accomplish that which is desirable.

A sample of the score sheets used is shown. It indicates the testing points selected by the class for a given standard (No. 3) and the comparative values that were agreed upon for the several testing points. It also shows the teacher's own rating of his agricultural program and a few brief reasons given by him for his rating.

From the accompanying graphic illustration will be seen the average scores by standards for all the programs that were studied, and also a curve for a given program represented in the group. Furthermore, both sets of data may be compared with a normal expectancy curve.

Making Field Studies Effective

(Continued from page 151)

by "rental" of private passenger cars. This varies in different states and should be worked out locally, in co-operation with a competent insurance agent. Whether reimbursement on a "gas and oil" basis constitutes hire is a legal question, but it would probably be interpreted as "hire." If some plan for reimbursement is worked out, it should be paid by the school district or by a transportation fund raised by the class on some basis other than an assessment.

Once a transportation system is worked out, then a plan of management should be established. All state and local traffic and safety laws should be strictly observed. To these should be added some such list as the following: 1. Load up and wait for starting signal from teacher. 2. Drivers keep in line and maintain their assigned place in caravan. 3. The teacher's car will bring up the rear of the caravan. 4. Each car keep within a safe distance of the car ahead. 5. Follow the route prescribed. 6. If one car stops, all are to

stop. 7. All cars make full stop at all railroad and highway crossings. 8. Upon arrival at destination pull to side of road and wait in car until teacher's car is parked. Then park as he directs. 9. Return in the same cars, in the same order, and over the same route as in going. 10. There is to be no "out-board" riding. 11. One long blast of the horn and lights on is the signal to stop.

Perhaps those readers who have reached this point are of the opinion that the best way to make field studies is not to make them at all. It is true, lessons can be taught which call for far less trouble, but good teachers will continue to use field studies and they will continue to improve the effectiveness of such lessons.



NEIL E. JOHNSTON, Vocational Agriculture Instructor, Clarinda, Iowa

"HERE is a picture of our trailer. We have made a great deal of use of it. In fact, it is about our only means of traveling. It has a maximum load of 16 boys seated on seats running along each side. This together with those in the car makes a trip load of over 20.

"We have found the use of this trailer very satisfactory. It reduces car mileage about three miles to the gallon to pull it. It is no special problem to pull if the car is in reasonably good shape but NO ONE has any business pulling a trailer of any kind unless his BRAKES are A-1 shape, effective and equalized.

"The biggest problem that I see in this connection is the tremendous responsibility it places on the driver. I would rather use a bus if it were available, but much prefer this to the use of several cars driven by boys themselves."

Sound Principles of Education

DR. KILPATRICK of Columbia University in his book, "Education for a Changing Civilization," makes this statement: "To learn is to acquire a way of behaving—a thing has been learned when at the appropriate time that kind of conduct can and will take place—what we learn we must practice."

The vocational education program in agriculture is conducted according to these fundamental principles. All boys are given an opportunity to put into practice the results of their study. This enables them to reach the highest level of learning the "doing level." The supervised practice work is a very essential part of the educational program in agriculture.



Farm Mechanics



Rural Community Refrigeration

C. F. ROLLINS, Teacher of Agriculture, Corryton, Tennessee

THE following is a plan for community refrigeration carried out as a cooperative activity by the Tennessee Valley Authority, University of Tennessee, and the local F. F. A. chapter which has been keeping records on cost of operation.

The Tennessee Valley Authority has designed and constructed an electrically operated "Walk-in" cooler to be used by a group of farm families. The equipment consists of a walk-in box six feet five inches by four feet four inches wide by eight feet six inches gross height (inside dimensions). The box is of wood construction, insulated with three inches of corkboard. The box is cooled by a three-fourths H. P. motor driven, air cooled condensing unit (York model 418 F. A.). Freon is the refrigerant used. A direct expansion evaporator of the finned type is located in an insulated bunker over the storage space. The cooler will accommodate from 800 to 1000 pounds of meat at one time. The box is to be used for storage of meats, fruits and fresh vegetables by a group of farmers joined together in a corporation. The group must sign an agreement to conduct the test and demonstrations. The cost of operation is prorated equally among members. Space is allotted equally among members. Space which is not in use by members is rented out to non-members at a flat charge per hundred pounds of products stored per week. Revenue derived from this source is used to help liquidate operating expenses.

One cooler has been in use since September 10, 1935. The most efficient use of the equipment has been made in the storage of fresh beef, pork, or mutton for immediate consumption by the community. These products are extremely perishable, have a high value per cubic foot of space occupied, and the time of storage is relatively short. These factors all compensate for the relatively high cost of refrigeration in a small plant of this type.

The storage of fruits and vegetables probably will not prove practicable in the very small plant, owing to the relatively low value per cubic foot of space occupied, which limits the income from the storage of such products.

No meat curing has been done except on an experimental scale by one of the members. Two hams which were cured in the cooler are said to have been of exceptionally fine flavor and quality.

Table I indicates the interest in the project. The quantity stored the third month was almost three times that of the first month. Whereas only four of the six members made use of the equipment during the first month, five members and seven non-members used it during the third month.

Weather conditions during November contributed largely toward an effective demonstration of the usefulness of the cooler. There were several cold days which were followed by a period of abnormally warm weather. Several farmers killed hogs on these cool days and when the weather turned warm, they were in danger of losing their meat. They brought the meat to the cooler and stored it at a cost which was quite nominal in comparison to

the value of the meat. Others who had been waiting for favorable weather killed their hogs and chilled the carcasses out in the cooler, after which they were removed, cut up and salted down.

What was accomplished during the abnormally warm weather could be done just as well during the hot summer months. Hogs which reach the most economical weight for slaughter in July, August, or September can be killed, the meat stored for consumption while fresh, or salted down and cured in the cooler. This practice will eliminate several months of unprofitable feeding, while waiting for cool weather.

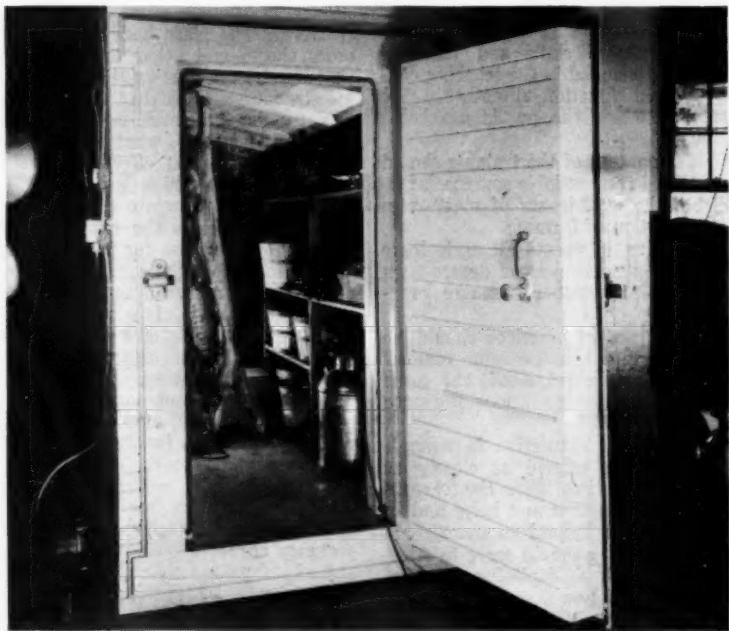


TABLE I

MONTH	PRODUCTS STORED (POUNDS)					PATRONS			Percent Stored by Non-Members
	Pork	Veal and Beef	Mutton	Misc.	Total	Member	Non-Member	Totals	
September	0	734	50	83	867	4	0	4	0
October	33	981	78	114	1106	3	1	4	3
November	1040	1164	34	95	2333	5	7	12	42
Total	1073	2879	162	292	4306				

TABLE II

Month	Power Consumed KWH	Rate Per KWH	Power Bill	Repairs and Maintenance	Total Cost	Products Stored (Pounds)	Cost Per Pound of Products Stored
September	76	4.5c	\$3.42	0	\$3.42	867	\$0.004
October	92	4.5c	4.14	0	4.14	1106	0.0037
November	82	4.78c	3.92	0	3.92	2333	0.0017

Fresh beef, veal, and mutton are available to many rural communities only during the late fall and winter unless co-operative groups can arrange to consume an entire animal within a very few days. Refrigeration makes fresh meat available at all times of the year without waste. The 1164 pounds of veal and beef which were stored during the month of November would have supplied fifty families with almost 25 pounds of fresh meat each during the month.

Table II shows the operating cost (No capital cost included).

The above costs are probably below the average for the year. During the hot summer months with an outside temperature of possibly 90 degrees, the power consumption might be expected to be twice that shown. It is not to be expected that there would have been any expenditure for repairs and maintenance during the first three months of operation. It has been estimated that \$25 will take care of this item over a period of years.

The value of the cooler to the community is difficult to estimate in terms of dollar value. One method would be to take the difference between the amount which the farmer would have received for the meat had it been sold on foot to the packer and the market value of the meat if the farmer had been forced to buy it all at retail price, after deducting the cost of operation and the labor of slaughtering and cutting. This would be in error, since the community was already killing some meat for local consumption. It is also an evident fact that the community is consuming much more fresh meat than it was before the cooler was installed. Taking the items of veal, beef, and mutton which amount to 3041 pounds for the three-month period and assuming that fifty percent of this or 1520 pounds would have been purchased from the outside at market prices, the savings would be estimated as follows: Assume that the farmers would have received the equivalent of ten cents per pound for the meat dressed if sold to the packers. Assume that they would have paid twenty cents per pound for the meat at retail prices. The gross savings on this basis would be \$152. Deducting operating costs which were approximately \$12, and a reserve for maintenance and depreciation of \$18.75, the net savings to the community on these items would be \$121.25. On this basis the cooler (\$600) would pay for itself in 15 months.

The following is an actual experience: A member had a small calf for which he would have received \$4 at the stockyards. He paid a man five pounds of meat for butchering the animal and kept five pounds for his own table. The balance was put in the cooler and sold. Gross sales amounted to \$9.10. Deducting twenty-five cents storage charge which is the amount which a non-member would pay for storing this animal one week and the value of the animal on foot which was \$4, the net cash gain was \$4.85. Add ten pounds of meat at twenty cents which was consumed and covered cost of butchering and his total net gain is \$6.85 on a calf which cost him \$4.

The financial set-up for a similar small co-operative plant is outlined.

Assume that the cooler could be financed over a period of four years with an interest rate of six percent on the unpaid balance.

Assume an average monthly power bill of \$5 on a rate of 4.5 cents per KWH and a maintenance and repair bill of \$25 per year.

Cost of Cooler installed.....\$600.00
Interest charges..... 72.00

Total capital charge \$672.00

Monthly payments \$672
(48 months)\$14.00
Maintenance \$25.00
(12 months) 2.08

Total monthly payments \$21.08

Power 5.00

For a co-operative composed of 11 members, the monthly cost per member would be \$1.92.

If an average monthly volume of 2000 pounds of meat could be maintained, the cost of storage per pound of meat would be slightly over one

cent, which is very reasonable indeed.

At the end of the four year period two methods of making charges are possible. Charges could be based on the cost of operation and maintenance alone which according to the above estimate would amount to \$7 per month. This would be only sixty four cents per month for each of 11 members or 3.5 mills per pound of meat with a volume of 2000 pounds of meat per month.

It is desirable at the end of the four year period to set up a reserve for replacing the equipment, or for making anticipated additions, a charge of twenty five cents per month for each of eleven members will build up a reserve of \$600 in an eight year period. The total charge per member during this latter period would then be \$1.16 per month per member or a total of \$12.76 for the entire group. This would amount to 6.4 mills per pounds of meat stored on a volume of 2000 pounds of meat per month.

(NOTE) This article is based on a report by W. I. NICHOLS and H. E. AYERS—Dept. of Electricity, Tennessee Valley Authority. Any additional information may be obtained by writing that department.

Use of Iron in Farm Mechanics Work

G. A. SPIDEL, Vocational Agriculture Instructor, Waverly, Nebraska

A MORE extensive use of iron in building articles of farm equipment that are subject to rough usage or constant exposure to the weather is a suggestion that should commend itself to every teacher of farm shop. Among the shop projects commonly built in the Waverly shop have been hay racks and feed bunks. Many of these have been in service long enough to permit a study to be made of their weaknesses and an effort is being made to change their construction to lengthen their period of use. With this thought in mind we have turned to the use of iron in the form of car frames and angle iron from old binders or other farm machinery. This material can be worked up without great difficulty in the farm shop and should greatly strengthen the equipment in which it is used.

Our feed bunks are fourteen feet long and have two pairs of legs set in two feet from the end of the bunk. The legs are thirty-eight inches long and are connected with a crosspiece made from a two by ten to which the floor is nailed. We use three one-foot planks for the floor and two by tens for the sides. Two by six inch crosspieces are placed flat under the floor, one in the middle and one at each end. A rod is dropped thru the side at these points thus tying the floor rigidly to the sides and ends. Rods are also used across the bunk at each end. The bottoms of the legs are braced with heavy wagon tire iron which is twisted in the middle and which is secured to the bottom of the bunk at the middle crosspiece. The writer realizes that this description may be difficult to follow without a sketch and if there is sufficient demand, further

details may be furnished in a future issue of this publication.

Angle iron, or channel iron from car frames also makes durable corners for hay racks. Such iron should not cost more than the lumber it replaces and permits a saving thru the use of shorter bolts. The drilling of so many holes constitutes a problem and has been met in our shop by installing an electric drill costing \$50.00.

Organizing a Program in Farm Mechanics

H. C. ENGELHARDT, in Illinois Fan Mill

IN organizing a program in farm mechanics different methods may be used. The following procedure has proven satisfactory under our conditions. We are teaching shop work as a separate course. However, I am sure it may be used under other types of organization since it is quite flexible.

1. The type of farm machinery and equipment commonly found in the community may be obtained from the general survey for your entire program. It is important to keep in mind the types of farming and equipment incidental to each, for this is essential in determining the amount and nature of shop equipment and housing.

2. A confidential conference between teacher and parent should be made to assure the parents of your sincere desire to make a contribution to the boy's education.

3. During summer months or early school year, make survey with boy and parent to determine mechanical opportunities and needs of the farm. List these.

4. Early in school year study individuals closely to determine present mechanical ability and skill. Probably

(Continued on page 160)



Future Farmers of America



Co-operation at Work and Results

GEORGE WOOLSON, Member Board of Education and Editor
Herald Journal, Clarinda, Iowa

WHEN dads seek farming practices which have been initiated by their sons, then surely the methods of the boys have succeeded.

That is just what is happening as a result of four years of co-operative buying and breeding of beef cattle by members of the Clarinda Purebred Beef Producers Association, an outgrowth of the Clarinda Vocational Agriculture Department. The animals are owned individually, by partnerships between boys, or between boys and dads.

Page County is a strong beef feeding county and the feeding of baby beefs as project work has gone on for some time. There were no good calves available within reasonable distance or price. The boys each year wanted better calves and the problem soon became acute. The program of producing rather than trying to buy good cattle was suggested and the above association was organized. It has grown right thru the depression to the extent that the members, many of whom have become independent farmers, have forty-seven purebred Angus and seven purebred Herefords with a total value in excess of \$6,000.

The breeding association was organized on November 15, 1931, under the direction of Neil E. Johnston, Vocational Agriculture Instructor, and has grown to the extent that it is now being incorporated as the Page County Aberdeen Angus Breeder's Association which includes both boys and adults. Surprising interest is being shown among adults, many of them fathers of the boys and others being neighbors and oldtimers at both cattle breeding and feeding who recognize the importance of the work that the boys have initiated.

Co-operation between father and son, both financially and in the spirit of the thing, has spelled success for the association. In many cases it has served to bring a father's dream to actuality—that his boy will take up farming as a life work. The boys' proposals to take up long-time livestock breeding programs have found most fathers anxious to help but not always able to finance the project.

One of the notable cases in this connection was that of a father, Dick

Sump, who not only aided his son in the purchase of breeding stock but loaned money to several boys to make purchases when ready cash was scarce but prices low. This money was loaned at five percent on the personal note of each boy and all loans were paid back one hundred percent. The faith that this father had in these boys during



A Prize Animal

these trying times is some evidence why the relationship between fathers and sons in this group is so fine.

In several cases boys have gone together to finance a purchase. One of the most outstanding of these is that of the partnership formed between Kenneth Fulk, an American Farmer of 1934, and Leroy Miller, an Iowa Farmer of the same year. These boys drove 600 miles to Mercer County, Illinois, and paid \$270 for a nine-month-old bull. This bull is now developing into an outstanding individual and is used extensively in breeding association cattle. A service fee of \$5 is charged.

An outstanding example of father and son co-operation is that of Lester Steeve and his father, O. H. Steeve. Lester not only owns eight females himself of unusually good quality, which is the most of any association member, but his father has been a very active and sympathetic booster. Mr. Steeve bought the first bull that was used by the members of the association in breeding their heifers.

Both the breeding and the individuality of the cattle purchased have been kept up to a high level. Daughters and grand-daughters of International Grand

Champions as well as bulls and females from many of the outstanding herds of Angus in the United States have been carefully selected for foundation stock. Trips by boys with their fathers and the instructor have been made for distances in excess of 600 miles to make purchases.

The association itself never has owned any livestock. The livestock is always owned by private individuals or partnerships. This leaves the association free to direct the co-operative work of its members with no danger of becoming mixed up in any financial disputes which might arise. This was an early decision and the longer the association has been in existence, the wiser the decision has seemed.

"We have had the very finest co-operation between fathers and sons," advised Mr. Johnston as he explained the co-operation between members of the family. On several occasions mothers have gone along, too, to show their interest. Many fathers are selling off their grade cattle to go along with their sons in raising better beef cattle. Not one boy who has bought an Angus heifer or cow since the association started has dropped out or sold any females. On the other hand, no animal will be kept for breeding purposes which does not prove itself to be a producer of the better kind of cattle.

There have not been any serious drawbacks as yet. However, there are several situations that must be continually guarded against. Care must always be taken towards finance, for the boy must not pay too much for his animals. The boy must have sufficient financial stability to stand the strain of feeding and caring for his cows or heifers for as much as two or more years before the produce of his breeding program can be marketed. The sympathetic understanding and co-operation of parents must also be looked out for.

Sixteen members had purebred Angus at the time the association merged into a county organization. They had twenty-three cows, thirteen heifers, six bulls and five bull and steer calves. There were also three members with Herefords who owned five cows and two bulls making a total of fifty-four purebreds.

If an individual member were to be pointed out, it might be Leroy Miller, one of the boys who bought one of the original heifers. He now has a herd of six fine females and half interest in the bull referred to above. Leroy is

Tune in on F. F. A. Broadcast Over N. B. C. Farm and Home Hour, Second Monday of Each Month

married and has been farming for himself for the past three years.

The association has had grand champion steer at the county fair three out of the past four years and this year placed five of the first six calves in the Angus class. Just recently a steer was shown at the American Royal at Kansas City which placed first in the senior calf class in the vocational show.

The interest of both boys and fathers makes the purebred beef project self-perpetuating, self-energizing and self-propelling. The enthusiasm generated carries over into the other types of projects raising them along with it. It does not overshadow other types, but tends to raise them to its level.

It fills a community need. It is the spark that makes everything else go better. It makes the boys plan and work for the future, rather than just tomorrow. It involves sound financing, careful saving, ability to stand up under trouble and disappointments. It provides fine co-operative training and is a real aid in developing the finer type of leadership.

Lincoln Junior Farmer's Club

J. F. POTTS, Teacher of Agriculture,
Lincoln, Virginia

AFTER having taught vocational agriculture in the same community for several years, one naturally would take inventory occasionally to determine the value of his efforts on behalf of his students and the community which he is employed to serve. Realizing that one of the major purposes of the vocational agriculture course in our high schools is to prepare farm boys to become outstanding farmers and leaders in their home communities, I am convinced that we fail to accomplish this objective with a large percent of our students in the four years of high school training. In 1930, after discussing the idea with Mr. D. J. Howard, my district supervisor, I decided to organize what we chose to call the Lincoln Junior Farmer's Club. This club was to consist of any former students of vocational agriculture now engaged in farming who desired to join and were interested in making a special effort to improve the agriculture of their community.

After discussing the plan with a number of these former students of vocational agriculture they seemed interested in the idea and we organized in March, 1930, and have been meeting on an average of once each month. While our membership has not increased as fast as one might expect, we keep from 15 to 18 active members most of the time, scattered over a service area of six to eight miles radius. While we turn out hundreds of these boys over a period of a few years who have had from one to four years training in our work, a number of them never farm and still another group of them for one reason or another, while remaining on farms, do not seem particularly interested in improving themselves or the agriculture of the community to the extent of coming out and working as a group. Hence we have limited our group to those interested enough to want to participate in such activities.

These young men are either in complete control of the management of their farms or are working with their fathers and sharing the responsibility. A recent check on the present membership shows that twelve of the sixteen members' fathers are deceased and in each instance the young man has assumed the management of the home farm. These farms are located within fifty miles of the city of Washington, D. C. and are in a dairy and general farm section.

Seven of our members are operating dairy farms ranging in size from eighty acres up to three hundred twenty-five acres with dairy herds from 18 head on the smallest to seventy-five head on the largest. All of these herds are accredited against T. B. and all are either accredited against Bang's disease or are working toward being accredited, having been tested for this disease for the past two years.

One member is breeding purebred Chester White hogs for market as breeders. Four members have certified flocks of laying hens while one operates a certified hatchery of 20,000 capacity. Two members are producing certified seed corn for sale. One of these corn growers recently won the gold medal offered for the best adult judge of grain at the Virginia State Seed Show and another has been awarded first prize two successive years for the best barley in the state show.

The majority of these young men are happy with their lot of farming, contented and keenly interested in ways and means of improving their conditions.

In this follow-up work I have attempted to interest each member each year in some special improvement of conditions on his farm, such as accrediting the herd against Bang's disease, certifying the poultry flock, certifying seed, etc. In this way their interest has been centered on something definite. They can see results a little more clearly and are thereby encouraged in their efforts.

At our meetings we discuss quite a variety of topics, but in practically all cases the topic represents a problem of one or several members of the group such as "What can we do to get a Bang's disease-free area for our community?" or "How can we fertilize our corn to secure better yields and mature better seed?" These discussions are generally assigned to one or more members in advance and they lead the discussion while the instructor acts as a governor, in case the discussion gets out of bounds or off the topic.

Just recently this Junior Farmer group joined with the F. F. A. boys and put on a county grain, potato, and egg show. They enjoyed this and got a lot of fun and competition out of it as well as good experience. Each year they also join with the F. F. A. group in putting on the Father and Son Banquet.

We have been working on the theory that *all work and no play makes Jack a dull boy*, so we try to provide some recreation for the group. During the winter months we meet at our high school for an hour or a little more, then after the meeting we take the group into the gymnasium and allow them to

play basketball for another hour. Most of them enjoy this. In summer we generally hold our July meeting on the river and have a feed and swimming party to which each member is urged to bring his sweetheart. We also take a farm tour about every two years to see something interesting or new in agriculture.

It seems to me that this type of part-time, follow-up work, or Junior Farmer Club or whatever one chooses to call it, presents one of the best and most effective opportunities a great many of us have to render a real service to the Aggie boys who will actually stick to the farm and make the rural communities what they are tomorrow. Personally I am convinced that one of the most effective ways of introducing needed reforms is thru practical and successful examples. If we can center some of our efforts on helping these boys who stick to the farm and who will respond to guidance, I believe we can actually accomplish more than we can in the all-day class room. A few outstanding farmers in a community soon convince their neighbors by example that better practices and methods pay.

While I have limited this phase of my work to former students of vocational agriculture, I see no good reason why other young men should not be taken into the group if they fit in with the purposes of the group.

SCORE CARD FOR MEASURING THE AGRICULTURAL PROGRESS MADE BY MEMBERS OF THE LINCOLN JUNIOR FARMERS' CLUB

I. BUSINESS METHODS USED—Points 20 Percent.

1. Inventory at beginning and end of this project to determine progress made during the year.....	2
2. Sufficient records to determine progress made during year and the methods employed in making that progress.....	3
3. Do you operate a checking and savings account at a bank?.....	2
4. Do you carry a life insurance policy? If so, how much?.....	2
5. Are you a member of any co-operative marketing or purchasing agency? If so, what?.....	3
6. Do you use radio market reports?..... State and Federal market reports?.....	2
7. What is your business reputation? Are bills paid promptly?..... What is your reputation for honesty and square dealing?..... Is your credit good at your bank?.....	3
8. What part do you have in the management of the farm you live on?.....	3
Total.....	20

II. OCCUPATIONAL IMPROVEMENT—25 Percent.

1. Have you called upon your state agricultural college during the year for any information or service?.....	1
2. Have you made any use of your state agricultural extension service?.....	3
3. Have you attended any short course work during the year?..... (a). College..... (b). Vocational agricultural n. s. t.....	2
4. Do you receive government and experiment station bulletins regularly?..... Do you use them?.....	2
5. What farm papers do you read regularly?.....	3
6. Have you taken a farm tour to observe agricultural progress during the year?..... If so, where?.....	2
7. Have you attended any agricultural conventions during the year?..... If so, what ones?.....	3
8. Do you take a vacation during the year?.....	2
9. What form of recreation do you indulge in? Hunt?..... Swim?..... Play baseball?..... Play basketball?..... Attend picnics?..... Sing?..... Play musical instruments?..... Other sports?.....	3
10. How many Junior Farmer Club meetings did you attend during the year?.....	4
Total.....	25

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Harry Glenn Parkinson

(Continued from page 146)

His long tenure at The Pennsylvania State College followed the latter service.

Indefatigable in energy, Professor Parkinson was identified in some vital way with practically all progressive undertakings, both on the campus and in the community of State College. Indomitable in spirit, he was ever a champion of just causes, following the dictates of his own conscience regardless of personal consequences. Of subtle wit and sunny disposition, he dispelled gloom from any individual or group into whose presence he came.

Surviving Professor Parkinson are Mrs. Hope Patton Parkinson and six children: three brothers—former state senator C. W. of Waynesburg, Pennsylvania, John, and Edward of Sparta, Pennsylvania—and a sister, Mrs. Jennie Dunkle, also living at Sparta. And in a sense, the 178 teachers of agriculture in Pennsylvania, nearly all of whom were graduated from Penn State and were known to Professor Parkinson personally, are also his survivors and will mourn the passing of a loved personality in the prime of life.—W. F. Hall.

Get Along, Ag Teacher

(Continued from page 149)

tributory factors in the success or failure of his work. Frequently a person may be guided by an outworn philosophy that should be scrapped for a new model. "O wad some Pow'r the giftie gie us To see oursel's as others see us."

3. *Continued professional preparation.* In plain English this means *study*. A teacher cannot teach what he does not know. For this reason he must be a constant student of the subject he is teaching. Failure to keep up on new information in agriculture for even a single day may make a teacher out of date on some problems of value to farm boys and farmers. Failure to keep abreast in technical agriculture is soon detected by the students.

In addition to keeping up on technical information, a teacher must be alert professionally. There is no easy road to advancement in teaching agriculture. To become an effective teacher and a good community leader requires that the teacher remain a student of problems in education. This may be done in several ways. For example:

- One may read recent well selected books on problems in education.
- One should read Agricultural Education.
- One may read other professional journals.
- One may work on special problems involving experimentation whereby new information may be secured.
- One may work on problems dealing with materials prepared by others.
- One may attend professional meetings and learn from addresses given by others.
- One may attend college classes.
- One may effect professional growth through a combination of the above.

The teacher who is going to "get along" is the one who remains a student of the problems of the teacher. Graduation from college and securing a teach-

er's certificate does not mean that a teacher is set for life. Really all it means is that he has met the minimum requirements. Even before the end of the first year some of the materials learned in college have become obsolete. Teachers with the best sort of collegiate preparation should make their greatest professional growth while in the actual process of teaching. This should not be a "Topsy" growth, but one that is carefully planned and based on a sound, progressive philosophy of learning and teaching. The best professional growth comes from within. A creative study of teaching problems helps to keep one intellectually alert. The department of agricultural education is anxious to help in every possible way.—AMF From Minnesota Visitor.

Program in Farm Mechanics

(Continued from page 157)

not until this is done is it safe to set up an individual calendar of work for each student.

5. Arrange with individuals or groups of individuals a calendar of work from six to twelve weeks in advance using lists secured from home farms. Allow for revision to take care of unanticipated jobs.

6. Determine desirable minimums of experience and skill for each shop enterprise.

7. Set up a thought thru and planned procedure for introducing the skill to the individual, the group or the class. Job study sheets containing basic questions and sources of information are valuable aids. Remember self instruction is most valuable instruction.

8. Design a grading system fully understood by teacher and boys. Standardized jobs can be given a definite number of points. Design a plan for grading the miscellaneous jobs, probably on a time basis.

9. Plan a method of getting work to the shop when calendar calls for it.

10. Establish a system of shop organization keeping in mind the size of class, the size of shop and the extent of equipment.

11. Set up a system of distributing and accounting for the usual material kept in the shop.

Junior Farmers' Club

(Continued from page 159)

III. COMMUNITY DEVELOPMENT—15 Percent.

- What agricultural organizations in the community or county do you belong to and take an active part in?..... 3
- Do you hold office in any of these?..... 3
- Do you attend your community league?..... 3
- Are you a member of any church?..... 3
- Do you take an active part in your Sunday School or church work?..... 3
- Did you vote at all local, state and national elections for which you were eligible?..... 3
- Did you attend county fair, corn and grain show or other exhibitions?..... 3
- Did you take an active part in any of the above?..... 3
- Did you exhibit at any of the above?..... 3

Total..... 15

IV. SPECIAL PROJECT FOR THE IMPROVEMENT OF CONDITIONS ON MY FARM DURING 1931—40 Percent.

- Did you have full charge of the management of this project?..... 5
- Outline briefly the conditions of this enterprise at beginning of this project, list the improvements you plan to make during the year and at end of year show what improvements you actually did make..... 25
- In what ways has the farm business been improved by this project this year?..... 10

Total..... 40
Grand Total..... 100

Nineteen to Sixty

H. E. URTON, Adviser, Canton, South Dakota

THE Canton Chapter of the F. F. A. was organized in 1929. At that time interest in vocational agriculture was at a very low ebb in this school, with 19 boys enrolled. We were looking for ways of stimulating interest in the department, when we read of the Future Farmers of America. This looked like an answer to our problem, and we immediately began the job of organizing a local chapter. When our state association was formed, we were ready to go, and made immediate application for a charter. We were issued the first charter in South Dakota. This injected new life into the department, and from that time we have had a steady increase in enrollment as well as in interest. Our peak enrollment was 60 and with an average of 53 for the last three years.

We have arranged the activities of our department so that they center around the Future Farmers in many ways. With this as a stimulus we have improved the quality of our projects and record books. No doubt, incentives of trips to the National F. F. A. Convention, being candidates for the State Farmer Degree, and being members of judging teams in our state contests have aroused interest and created a great amount of enthusiasm. The boys are very proud of the achievements of former members, and all are trying to live up to the standards which have been established. Nine of our boys have been awarded the State Farmer Degree, and two of the six South Dakota boys to receive the American Farmer Award have been from our chapter; also, we have been represented each year at the National F. F. A. Convention. Each year since forming the local chapter we have had a Father and Son banquet as one means of acquainting the fathers with our organization.

Judging by the results we have obtained in our own department and my observation as to the effect of the F. F. A. in other schools, I do not believe that there is anything which will develop a real, live department like a well organized F. F. A. chapter. It gives the boys an opportunity for training in leadership that they would not be able to secure by any other means. They also receive valuable lessons and practice in the ways of conducting and taking part in meetings and programs that they can make use of in their own communities, both before and after they leave school. It is also a practical demonstration of the benefits of co-operation and consideration for the other fellow's problems. The F. F. A. is also a splendid means for giving out information regarding the work in the agriculture department thruout the community and especially for contacting and interesting new students in the work.

AS A person gets older, he can do more work, for he has acquired a philosophy of life which enables him to take each hurdle as it comes with undue strain.—Harold L. Iekes.

